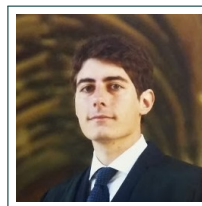# Edoardo M. Ponti

Curriculum Vitae

St John's College
Cambridge CB2 1TP, UK
☏ (+44) 7403197323
✉ ep490@cam.ac.uk

Education

October 2020 (expected)	**Postdoctoral Fellow**, School of Computer Science, Mila - Quebec AI Institute / McGill University (Montreal, Quebec, Canada). In collaboration with Siva Reddy.
October 2016 - September 2020	**Ph.D. in Computational Linguistics**, Language Technology Lab, University of Cambridge (United Kingdom). Supervised by Anna Korhonen. Affiliated to St John's College.
January - March 2016	**Visiting Student**, at Vrije Universiteit, Amsterdam (Netherlands). Part of the ERC-funded NewsReader project for story extraction and generation.
October 2014 - July 2016	**Master in Theoretical and Applied Linguistics**, University of Pavia (Italy). Thesis title: *Identifying Causal Relations between Events with Artificial Neural Networks.* 110/110 with honours and publication recommended (extremely rare).
October 2011 - July 2016	**Diploma in Human Sciences**, Neuroscience and Teoretical Syntax, Institute of Advanced Study (IUSS), Pavia (Italy). Highest grade and publication recommended.
2014 and 2016	**Erasmus exchanges**, at the University of Helsinki, Finland, and the University of Cambridge, United Kingdom.
October 2011 - July 2014	**Bachelor's Degree in Modern Literature**, University of Pavia (Italy). Thesis title: *Partitive subject in Finnish*. 110/110 with honours. Affiliated to Ghislieri College.

Publications

arXiv Preprints

1. **Ponti, Edoardo Maria***, Goran Glavaš*, Olga Majewska, Qianchu Liu, Ivan Vulić, and Anna Korhonen. 2020. *XCOPA: A Multilingual Dataset for Causal Commonsense Reasoning*. arXiv-2005.

2. **Ponti, Edoardo Maria**, Ivan Vulić, Ryan Cotterell, Marinela Parovic, Roi Reichart, and Anna Korhonen. 2020. *Parameter Space Factorization for Zero-Shot Learning across Tasks and Languages*. arXiv:2001.11453

3. Vulić, Ivan*, Simon Baker*, **Edoardo Maria Ponti***, Ulla Petti, Ira Leviant, Kelly Wing, Olga Majewska et al. 2020 *Multi-SimLex: A Large-Scale Evaluation of Multilingual and Cross-Lingual Lexical Semantic Similarity*. arXiv:2003.04866

4. Lauscher, Anne, Ivan Vulić, **Edoardo Maria Ponti**, Anna Korhonen, and Goran Glavaš. 2019. *Informing Unsupervised Pretraining with External Linguistic Knowledge*. arXiv:1909.02339

Peer-Reviewed Conference Papers

1. **Ponti, Edoardo Maria**, Ivan Vulić, Ryan Cotterell, Roi Reichart, Anna Korhonen. 2019. *Towards Zero-shot Language Modeling*. In Proceedings of EMNLP 2019.

2. **Ponti, Edoardo Maria**, Ivan Vulić, Goran Glavaš, Roi Reichart, Anna Korhonen. 2019. *Cross-lingual Semantic Specialization via Lexical Relation Induction*. In Proceedings of EMNLP 2019.

3. Kamath, Aishwarya, Jonas Pfeiffer, **Edoardo Maria Ponti**, Goran Glavaš, and Ivan Vulić. 2019. *Specializing Distributional Vectors of All Words for Lexical Entailment*. In Proceedings of RepL4NLP-2019.

4. **Ponti, Edoardo Maria**, Ivan Vulić, Goran Glavaš, Nikola Mrkšić and Anna Korhonen. *Adversarial Propagation and Zero-Shot Cross-Lingual Transfer of Word Vector Specialization*. In: Proceedings of EMNLP 2018.

5. Gerz, Daniela, Ivan Vulić, **Edoardo Maria Ponti**, Roi Reichart and Anna Korhonen. *On the Relation between Linguistic Typology and (Limitations of) Multilingual Language Modeling*. In: Proceedings of EMNLP 2018.

6. **Ponti, Edoardo Maria**, Roi Reichart, Anna Korhonen and Ivan Vulić. 2018. *Isomorphic Transfer of Syntactic Structures in Cross-lingual NLP*. In: Proceedings of ACL 2018.

7. **Ponti, Edoardo Maria**, Ivan Vulić and Anna Korhonen. 2017. *Decoding Sentiment from Distributed Representations of Sentences*. In: Proceedings of *SEM 2017. 30 July - 4 August 2017, Vancouver (British Columbia, Canada).

8. **Ponti, Edoardo Maria** and Anna Korhonen. 2017. *Event-Related Features in Feedforward Neural Networks Contribute to Identifying Implicit Causal Relations in Discourse*. In: Proceedings of the Workshop on Linking Models of Lexical, Sentential and Discourse-level Semantics. 3-7 April 2017, Valencia (Spain).

9. **Ponti, Edoardo Maria** and Marco Passarotti. 2016. *Diversity Makes Composition. A Slower-paced and Reliable Parser for Latin*. In Proceedings of the Conference on Language Resources and Evaluation (LREC'16). 23–28 May 2016, Portorož (Slovenia).

10. **Ponti, Edoardo Maria**. 2016. *Divergence from Syntax to Linear Order in Ancient Greek Lexical Networks.* In Proceedings of The 29th International Florida Artificial Intelligence Research Society Conference (FLAIRS 29). 16–18 May 2016, Key Largo (Florida, USA).

Journal Articles

1. **Ponti, Edoardo Maria**, Helen O'Horan, Yevgeni Berzak, Ivan Vulić, Roi Reichart, Thierry Poibeau, Ekaterina Shutova, and Anna Korhonen. 2019. *Modeling language variation and universals: A survey on typological linguistics for natural language processing*. Computational Linguistics, 1-43.

2. Gerz, Daniela, **Edoardo Maria Ponti**, Ivan Vulić, Jason Naradowsky, Roi Reichart, and Anna Korhonen. 2018. *Language Modeling for Morphologically Rich Languages: Character-Aware Modeling for Word-Level Prediction*. Transactions of the Association for Computational Linguistics (TACL) 6:451-465.

3. **Ponti, Edoardo Maria** and Silvia Luraghi. 2018. *Non-configurationality in diachrony: Correlations in local and global networks of Ancient Greek and Latin.* Diachronica 35(3).

4. **Ponti, Edoardo Maria**, Elisabetta Ježek and Bernardo Magnini. 2017. *Distributed Representations of Lexical Sets and Prototypes in Causal Alternation Verbs*. Italian Journal of Computational Linguistics, 3.1.

Book Editor

1. **Ponti, Edoardo Maria** and Marco Budassi (eds.). 2016. *Compter parler soigner. Between Linguistics and Artificial Intelligence*. Pavia University Press, Pavia.

Job Experience

Jul - Sep 2019	**Internship in AI / ML at Apple**, Cupertino (California, U.S.). International features of Siri.
Oct - Dec 2015	**Internship at the Bruno Kessler Foundation (FBK)**, Trento (Italy). Topology of word embeddings of lexical sets.
Feb - May 2015	**Internship at CIRCSE**, University of the Sacred Heart, Milano (Italy). Ensemble methods for dependency parsing of Latin (*Index Thomisticus*).

Teaching Experience

Supervisor

Oct 2017 - May 2019	**Computational Linguistics**, University of Cambridge (U.K.). Department of Theoretical and Applied Linguistics. For two years: A.Y. 17/18 and 18/19

Demonstrator

Oct 2017 - May 2018	**Machine Learning and Real-world Data**, University of Cambridge (U.K.). Computer Lab, Faculty of Computer Science and Technology.

Thesis Advisor

Master's thesis, Jia Wan, Huilei Wang. **Bachelor's thesis**: Bonamy Meath-Baker. University of Cambridge

Summer Schools

Jul 2017	**Generative Lexicon: Integrating Theoretical and Distributional Methods**, Preparation of ESSLLI 2017 course material, Toulouse, France.

Tutorials

Nov 2019	**Semantic Specialization of Distributional Word Vectors**, Tutorial at EMNLP-IJCNLP 2019, Hong Kong, China.

Conference Organization

Aug 2019 - Nov 2020	**TyP-NLP - Typology for Polyglot Natural Language Processing**, Workshop at ACL 2019 (Firenze, Italy) and EMNLP 2020 (Punta Cana, Dominican Republic).
Feb 2019	**St John's College Graduate Symposium**, Cambridge (U.K.).

Service

Publicity/Sponsorship Chair, CoNLL 2018.

Program Co-Chair Assistant, ACL 2019.

Reviewer, *ACL 2018, EMNLP 2018, NAACL 2019, *SEM 2019, ACL 2019, EMNLP 2019, AAAI 2019, ACL 2020 (**Outstanding Reviewer**), EMNLP 2020, Artificial Intelligence, Natural Language Engineering, Language Resources and Evaluation, Journal of Historical Linguistics.*

Co-founder and Committee Member, *ACL Special Interest Group on Typology (SIGTYP).*

Funds and Awards

Mar 2020	**ERC Proof-of-Concept Grant**. Project 'Enabling Multilingual Conversational AI', co-written with Anna Korhonen (PI), and Ivan Vulić € 150,000.
Aug 2019	**Best Paper Award at Repl4NLP 2019**. For the paper "Specializing Distributional Vectors of All Words for Lexical Entailment", co-written with Aishwarya Kamath, Jonas Pfeiffer, Goran Glavaš and Ivan Vulić
Mar 2019	**Google Faculty Research Award**. Project "Automatic Induction and Adaptation of Syntactic Structures for Improved Cross-Lingual NLP", co-written with Anna Korhonen (PI), Roi Reichart, and Ivan Vulić $60,841 USD
Oct 2016 - June 2019	**ERC studentship**, University of Cambridge (United Kingdom). Project LEXICAL: Lexical Acquisition across Languages (code GZ08825). £21K/year for 3 years.
2016	**Self-placed Fulbright Scholarship**, U.S.A. Offer of a $38K grant and $1.1K travel allowance (declined).
Dec 2016	**Young researcher best paper award**, Naples (Italy). 3rd Italian Conference of Computational Linguistics.
Sep 2011 - Jul 2016	**Award from the Institute for Advanced Study**, Pavia (Italy). Around €2.5K awarded annually (for 5 years) to students who fulfil merit criteria.
2014	**Scholarship from Collegio Ghislieri**, Pavia (Italy). One-year free board and lodging for the best student in contest (score 78/80).

Technical Skills

- Programming languages: Python, C++, R
- Deep learning libraries: PyTorch, TensorFlow, Theano

Linguistic Skills

Italian	**Native speaker**	
English	**Fluent**	*IELTS 8*
Finnish	**Intermediate**	
German	**Beginner**	*Start Deutsch 2 - Goethe-Institut*

References

Prof. Anna Korhonen, Professor of Computational Linguistics, Co-Director of the Language Technology Lab, University of Cambridge. alk23@cam.ac.uk

Dr. Ivan Vulić, Senior Research Associate, Language Technology Lab, University of Cambridge. iv250@cam.ac.uk

Prof. Roi Reichart, Assistant Professor at the faculty of Industrial Engineering and Management of the Technion - Israel Institute of Technology. roiri@ie.technion.ac.il